

## **GYSO Episode 19 Sarah Hornsby Myofunctional Therapy**

**Dr. Gould:** Alright! Hello everybody! Welcome to Get Your Smile On. I am Dr. Joel Gould your wellness dentist. Happy Holidays everybody we are in the beginning part of December and I am broadcasting live from beautiful Manhattan Beach, California. As usual today we're going to speak to a very interesting young lady by the name of Sarah Hornsby, and we're going to talk about something called Myofunctional Therapy. If you have no idea what Myofunctional Therapy is you're not alone. This is a relatively new topic or new concept and what it has to do is basically muscle training. Now we're going to be bringing Sarah on in a few minutes here but I just want to do a little recap I know we talked about a lot of different subjects and we focused on Vitamin D and we focus on Sleep Apnea. It's been a little while since I have been doing all this work with the two different ideas of Vitamin D and Sleep Apnea. We're going to be bringing this all together at a certain point and time.

Today I want to focus on: What do we do with Sleep Apnea? What are the ways we treat it? So here at my office and all of my three locations of Modern American Dentistry we have a unique approach to treating Sleep Apnea. Now I think it's unique because I think it's something that a lot of people are not doing. In most cases once you've been diagnosed with Sleep Apnea, what happens is your doctor or the technician puts a Sleep Ap mask on your face they fit it, they calibrate it and off you go, you go home and you wear your sleep Ap hopefully every night to prevent you from having issues with the dangers of sleep apnea and we've discussed those in the past, all of the health issues that come along with untreated and undiagnosed Sleep Apnea.

Now, the primary treatment that we do here at Modern American Dentistry is something called a Mandibular Advancement Device, and that is a dental appliance or a dental device that helps to hold the lower jaw open and forward so that we can get air while we're sleeping. Now if we're just considering whether this extremely works or not, I can tell you for sure that it does because I feel like a whole different person since I have been wearing my Mandibular Advancement Device. However, I don't want to wear it for the rest of my life, and I didn't have sleep apnea I don't know how many years ago, and I'm hoping that maybe in the future this can be cured. Part of my treatment program includes supplementation, and that's where the vitamin D and magnesium come in, and we have our podcast episode on those two topics. Then the last piece of the puzzle of my treatment plan is something called Myofunctional Therapy. What that is is a retraining of the muscles that are involved in swallowing, speaking and breathing. Tonight I have Sarah Hornsby, and we're going to bring her on right away. Sarah, are you out there?

**Sarah:** Hi Dr. Gould, I am here can you hear me alright?

**Dr. Gould:** I can hear you just great you're calling from the Seattle area, right?

**Sarah:** Yes. So I am a Myofunctional Therapist, and while I am based in Seattle I actually work with most people over Skype these days. So yeah, if you want I can just explain what

Myofunctional Therapy is and a little bit about what I do< and people can learn something new.

**Dr. Gould:** Okay hold on, we're going to slow down. I always like my listeners to know a little bit about the person who is speaking so I just want a little history about you. Let's talk about your career in Dentistry because that's sort of where this all started, and how did you get interested in dentistry and where did this start for you?

**Sarah:** Well, I have my degree in Dental Hygiene. So I went to Eastern Washington University, which is a great school. I got a Bachelor's Degree in Dental Hygiene, and I graduated back in 2008, so all and all I am pretty new to the field of Dentistry. I knew right away when I got out of school that I wanted to do more, and I didn't know if that meant going back to dental school or what that meant for me. I started doing some research, and I discovered this weird interesting field that I hadn't learned about in school, and it was Myofunctional Therapy. So it really started for me then. I started looking into it more. I was very confused at first. I thought why did I not learn about this in school? This is such a big thing and nobody mentioned it.

Then the more doctors I started talking with, orthodontist, pediatric dentist, even pediatricians and general physicians, didn't really know a lot about this field when I first started looking into it. It's grown a lot, and I think people are a lot more aware because of the connection that it has to sleep apnea. Basically from about 2009 onwards I have been delving into this field full speed, and I took a training program back in 2009. I started my own private practice in Myofunctional Therapy in 2010, and I have been doing it ever since. I had at one point two offices in the Seattle area, and I was very busy and full, and then I've actually closed one office base to start working with more and more people online. I can't even tell you how much of whirlwind it's been, but people contact me from all over the world. So I have patients in probably 13 different countries, and they contact me because they can't find anyone in their area. It's exciting for me let's see last year

**Dr. Gould:** Okay. Hold on! Hold on! I'm going to slow you down here. So I want to sort of start at the beginning when you were doing hygiene were the offices you were at working with was sleep apnea the initial introduction that you got to this, or was it through a different way?

**Sarah:** No. It was through a different way most people that become aware of the field of Myofunctional Therapy. I think it starts with orthodontics. So many orthodontists will notice a tongue thrust. Many dentists will notice a tongue thrust, and this is probably the key symptom I would say that gets recognized. Usually in children, people who are getting braces at some point, an orthodontist might notice that the tongue pushes forward when they swallow, and it goes between the teeth in a resting position, and it interferes with the braces that I'm trying to put on these patients.

**Dr. Gould:** Right. So okay, I just want to clarify this for everyone listening. So tongue thrust or tongue thrust swallowing is what some people do, and it gets them started at a young age, and they thrust their tongue forward to seal the airway and to seal the mouth as

they swallow. It becomes such a bad habit that the force of the tongue actually physically pushes the teeth to what we call an open bit, so that when you close your teeth together they actually don't overlap at all. We don't have any overbite or over jet where the teeth should come together. They also get something call an anterior open bite, and what that is, anterior means in the front, and open bite means that you can basically have a little space, sometimes it big and sometimes it's small. Do you have any idea of how the tongue thrust swallow sort of originates? Is there a classic presentation of how this all start or is it variable?

**Sarah:** Oh yeah definitely. So what we know is that people who have a tongue thrust have an array of other symptoms that go along with it. The tongue thrust gets recognized, but usually tongue thrust comes from some type of airway issue, so that's a really interesting fact. That is where me and you kind of connect on this topic is the airway, because the airway is really my main focus, our ability to breathe, and a tongue thrust usually develops when somebody is unable to breathe through their nose, whether that's very young in life because of allergies or enlarged tongue folds or maybe chronic congestion. We don't always know what causes it. So it's congestion problem in young kids, but when they can't breathe through their nose they have to breathe through their mouth in order to get oxygen. When they breathe through their mouth, their tongue drops low and goes into that tongue thrust position. So it's not just the movement of the tongue that interferes with the teeth, it's mostly actually the resting position. So the tongue rests low in the mouth, and the mouth is open. Those are kind of the classic symptoms that go along with it, and the thing that we're discovering is that those children who have open mouth and tongue thrust from a young age are the adults who grow up to have sleep apnea. So that's the interesting thing.

**Dr. Gould:** Right. Right. Well you know this is something you and I talk about and you might focus as I sort of discuss earlier what the vitamin D connection is. And what's interesting is the idea that there's so many more children out there with allergies and this is really on the rise. In previous episodes we talked about how the increase in allergies is directly linked to a vitamin D deficiency that's starting at an earlier age. We have the vitamin D deficient mom giving birth to a child that's really low on vitamin D, and then we have the development of all kinds of allergies. We talked about that nasal breathing or breathing through your nose as the gold standard. All really healthy swallowing habits start with clear nose, but when we have that I guess we have to deal with the consequences. So while we're on this topic I want to talk about what is the ideal position for the tongue. I think the people out there listening may be confused or may not have heard anything like this before. Why don't you go ahead and tell us, rest when you're not talking, not chewing, not eating where should the tongue be.

**Sarah:** That's a really good question, and it's actually the first thing that I work on with people. So at rest our lips should be together and it shouldn't feel forced it should feel very natural, our teeth should not be clenching you shouldn't actually touch your teeth at rest. So there should be a millimeter, I don't know 2, 3, 4 mm between all your teeth when you're resting. Now for the tip of your tongue that should be touching the hard palate you might feel a, we call it rugae but you might feel some bumps or ridges on the roof of your mouth behind your upper front teeth. That's where the tip of your tongue

should go. Now the trickier part if you have a tongue thrust is the back of your tongue should actually go up and rest against and fill up your entire palate. It should be natural it shouldn't be forced. To summarize that your tongue should be high and filling up the roof of your mouth. Is that a good description for you?

**Dr. Gould:** Yes that's a great description, and just so that you know and we talked about this. This is a new topic for me, and when I started to learn about this I have actually start practicing putting my tongue in the right position. I'm pretty sure that I haven't had it in the right position for a long time. I am one of those kids who didn't breathe through my nose and have all those issues. Okay, very cool, so how long does it take for somebody to gain their confidence or how long does it take for kids to actually follow through with this? Is it something that takes... is it easy or is it hard?

**Sarah:** It's pretty hard, and that's why I have a job. If it was easy we would all just do it. I have people who say, I don't understand why can't I just close my mouth? Why can't I just put my tongue on the rest of my mouth? It's because the muscles have developed, especially for adults, these issues are unique to children. If you are a child who grows up with an open mouth, you're going to be an adult with all of these issues. It becomes harder to change the muscle patterns the older you get. That doesn't mean it's impossible, and there are advantages for adults because we tend to have a greater awareness of our mouth, and as long as I can teach somebody to pay attention to those things during the days. So people have to start monitoring is my mouth closed? Is my tongue in the right position? As long as you can start building that awareness, the changes can happen pretty quickly. I would say minimum it takes probably 8 weeks to get a really good basis but I work with a lot of people for a year. A year of therapy is pretty standard.

**Dr. Gould:** How frequently do you see those people? How many times? Is it a week, a month, you give them home work?

**Sarah:** A week sort of. Yeah, they get home work. So I teach exercises a lot like a physical therapist would, like if you were working on rehabilitating a knee injury or something like that. So I teach maybe three to four exercises a week, and each person gets to go home and practice the exercises on their own. I recommend doing it twice a day. It takes about 5 minutes each time, and then we meet back again in a week and I give them new exercises and go over the old ones again. So for the first 8 weeks or so it's usually once a week, and then it becomes less and less from there on out.

**Dr. Gould:** Okay and you keep them having repeating them like going through the same exercises or you just do different ones?

**Sarah:** They get new ones usually each week, but sometimes we're not perfect with practicing, and I totally understand that. Sometimes I have them repeating just to get down a little bit better. Sometimes I have them spend their 6 weeks of therapy with me. I might go back to something they did in week two just to see how much they've improved, and if they've gotten better at those techniques and thing and I usually see really big improvement.

**Dr. Gould:** Okay that's great. So when someone has finished your program do they have to do some maintenance schedule of exercises or they pretty much retrain, or can they can just move on with their life?

**Sarah:** Well that's funny, because they're pretty much retrained as far as I'm concerned with the Myofunctional issues. So that includes nasal breathing, by the time people are finished working with me they should be able to easily and naturally and comfortably breath through their nose, rest their tongue in their palate, swallow correctly during eating, drinking and swallowing saliva, and they should rest with their lips together. Sleep apnea is a slightly different topic, because if I'm working with an adult who has sleep apnea there are some maintenance exercises that need to be done and for those

**Dr. Gould:** Okay. Hold on, hold on. I got to slow you down you're too fast here.

**Sarah:** I know that. I'm so fast.

**Dr. Gould:** I'm sorry we're actually to take a few seconds for a commercial break and we'll be right back, so everybody hang on, and we'll be right back.

Alright, we are back I am here with Sarah Hornsby. Now before we move on into the sleep apnea area I want to sort of talk just more about kids and I'd like to know what other issue do you deal with, with children. So we know definitely tongue thrust swallowing. What other conditions are most common or that you see with children?

**Sarah:** The tongue thrust swallowing is something that most parents wouldn't recognize that usually only get recognized at the dentist and honestly most times it probably gets missed there. The most common thing that parents can look for as a potential problem is the allergies, like you're talking about, so stuffy noses and enlarged tonsils and adenoids are both things that prevent us from being able to breathe through our nose and that's probably the basis of most of these problems. Children who have thumb sucking and finger sucking habits can also develop a tongue thrust mostly the thumb is blocking where the tongue rest naturally. Another big one is a tongue tie so this is something that a lot of times I am the first person to see or to find out. But you can have your children screened for a tongue tie. A lot of times they can do it at the dentist. They probably won't look as closely as I do. I'm really, really a big believer in looking at tongue tie and should I explain what that is Dr. Gould?

**Dr. Gould:** Yes. Why not? So they realize. Anyone who has a child that has a tongue tie will know but nobody else will go ahead.

**Sarah:** Yeah. Exactly. So it's usually recognized during breast feeding so the first problem would be a difficulty latching on for an infant and sometimes it gets missed, because it's really hard we don't figure out why, or maybe the lactation consultant doesn't look at it, or they're told it's not a big deal so then they're bottle fed and then the next opportunity it might get caught is during speech. So a lot of people with what we call a restricted lingual frenulum which basically is like a short tongue or the tissue underneath the tongue is too short it's restricted and we can't get the proper movement. So some

people end up having speech issue and then it might get caught then. For a lot of people they don't have speech issues and it never gets noticed until they're an adult and maybe they have sleep apnea, jaw pain or some other issue that's connected to not being able to get the full movement of the tongue. For me it's a big deal because if my goal is to get my patients to elevate their tongue to rest naturally in the palate in the roof of the mouth. A tongue tie really prohibits that.

**Dr. Gould:** Sure

**Sarah:** So a tongue thrust and a tongue tie really both cause a lot of the same problems just from different underlying issues I guess.

**Dr. Gould:** Okay. Right and if you say that quickly that's also a tongue twister, I have a feeling

**Sarah:** I think so. Yeah

**Dr. Gould:** Okay. This is something I don't know this, what's the earliest stage they'll actually do surgery to relieve a tongue tie. Is there any indication they'll do that during breast feeding age or that's just plain young.

**Sarah:** Yeah they will yes. There's a lot of doctors I've heard Dr. Cutolo I believe I can't really ... he's locate on the East Coast; he does it like within the first 24 hours.

**Dr. Gould:** Oh wow!

**Sarah:** He is a dentist, and he works with a Myofunctional therapist and lactation consultants, and I mean very early. There are a lot of specialists. I know there's a guy in Portland Dr. Bobby Ghaheri I refer patients to him from Seattle even. He will see infants and babies, toddlers and adults. So it does take a lot of kind of looking into. I'm not sure why, but I think it seems like a scary thing for a lot of people to do surgery on, but it's actually very simple and an incredible helpful procedure.

**Dr. Gould:** Okay that great, that's great information. So now we're going to move on to Sleep Apnea. I want to let my listeners know that you and I been sort of working together on a Myofunctional Therapy program. I have been so busy I haven't even gotten to the stuff that we're supposed to be doing.

**Sarah:** That okay

**Dr. Gould:** Let's talk briefly in my treatment of sleep apnea we want to retrain the muscles and we're going to talk at a later date about retraining for breathing in the diaphragm. We've got a Didgeridoo expert to come on regarding that. So let's just talk briefly what's your basic outline for Myofunctional Therapy for somebody who has Sleep Apnea.

**Sarah:** Like the first step I would do or. . .

**Dr. Gould:** Just maybe an overview I know that when people hear that there are tongue exercises maybe you can sort of give an example of what you would work on with your sleep apnea patient. May be just like a brief outline.

**Sarah:** Sure. Oh yeah for me there are specific sleep apnea exercises but in the beginning I actually take people through basically the same process that I would with any patient. If the sleep apnea root problems are Myofunctional problems in nature then I still want to make sure that the patient elevates their tongue to the roof of their mouth, and they still breath through their nose and all those thing so first I have to make sure they're doing all that stuff, and then not everyone who has sleep apnea has these Myofunctional symptoms. So that's one difference for us is I'm only really working with people who have all these other like tongue thrust and airways issues too.

So first I make sure they can breathe through their nose, they know where their tongue goes and then I teach them specific exercises. Those specific sleep apnea exercises are more focused on like the throat or the oral pharynx and the soft palate. One good exercise I can explain right now that people might be kind of curious to try is if you open your mouth really wide and look at the back of your throat and you can see the uvula, it's the part that hangs down. If you can make yourself yawn and practice elevating that back part of your throat and hold it count to five hold that back part of your throat up, and then relax that's a really good sleep apnea exercise I call that a yawn pull. So that's one example and maybe. Does that make sense to you Dr. Gould could you just try that?

**Dr. Gould:** Here's the thing I'm sitting here trying to do that. But I had a root canal done today and my mouth is so sore oh gosh dentists are horrible. No! Dr. Nowell Gray one of my associate dentist here he did my root canal and it was completely painless I'm just pretty sore now. This does happens root canals happen to dentists too, and I mean I fast three, four times a day. So that's not a matter of not taking care of my teeth just sometimes it's wear and tear. I think I probably eat too much but I enjoy okay. That's sounds great. I know the tongue exercises that I had sort of been doing on part time, I was worried about doing them in the car, that's where I do them pulling up next to somebody sticking my tongue out repeatedly in different directions. Now so you do the same kind of system where basically you're giving people the exercises you're adding three or four at a time per week is that you usual do

**Sarah:** Yes, that's usually what I do. I don't want to give people an overload. I know everyone is busy we don't have that much time. I tell people if you can take ten minutes out of your day to basically change your life but if you have Sleep Apnea and you're trying to change your quality of life ten minutes is really worth it. And you know that because you were talking about your own sleep apnea so

**Dr. Gould:** Right, right the whole point with Myofunctional therapy and why I got so interested in it is that when it comes to sleep apnea we rate people by the score of their sleep apnea. They have something called the AHI index or Apnea-Hypopnea Index and that's basically how many times people stop breathing per hour. We both looked at the studies that show that someone's sleep apnea score their AHI index can actually be reduced by as much as 50% just through Myofunctional Therapy alone and the really cool part about

that for somebody that has really mild sleep apnea this could be a huge help for them because technically they would be working towards getting off of having to wear those device. So these exercises I think are really critical and pretty easy too. This is like going to the gym and having to muscle your way into

**Sarah:** I know

**Dr. Gould:** I would like everybody listening know how to contact you. Tell us what is your website and how can people get a hold of you?

**Sarah:** The best way to contact me is you can go to my website at [www.myfaceology.com](http://www.myfaceology.com) and there is a contact form on there that you can email me through. You can also email me directly my email address is [sarah@myfaceology.com](mailto:sarah@myfaceology.com) and I offer free thirty minutes consultations on Skype if you just have questions or if you want me to take a look at something. And let's see I'm coming out with some different video series after the first of the year I'll have a tongue tie one and a sleep apnea one and I have some videos that I've put together that I'm really excited about. So that's coming in the future. And I am excited to keep collaborating with you Dr. Gould and see what we can come up with together.

**Dr. Gould:** Right, well, so we're working on a special app, and at this point in time no one is doing this, and I always feel like I'm at the forefront of this. So we're going to put together a really cool app that's interactive that makes the struggles and the exercise a little easier, by having you interact with your phone because you're probably staring at it for the most of the day, anyway might as well make something good happen from that. So we're going to be having your information posted on our website as I do with all my podcast guests, so if anyone did not get the contact information just give us about a week or so and that would be posted up on the Modern American Dentistry's website.

Sarah, the half an hour flew by, and I promised all of my friends and all my listeners that we would keep it to half an hour, because as exciting as dentistry and wellness dentistry is I think half an hour is pretty good. I really appreciate you coming on and letting everybody know about this. I was saying this is the Wild West when it comes to Myofunctional Therapy. You especially are kind of writing the rule on this and I'm really excited for all the good stuff that you're going to bring to all the kids out there who can avoid my fate. So I'm very excited about you doing this.

**Sarah:** Yes

**Dr. Gould:** Okay thank you so much. We'll be talking to you soon. Alright?

**Sarah:** Alright. Thanks so much.

**Dr. Gould:** You got it. Thank you. Okay everybody so that was Sarah Hornsby on Myofunctional Therapy, muscle retraining really cool, really important stuff. I would like to thank my incredible producer Maria De Giovanni we'll be talking about some Myofunctional Therapy for you later on. I want to say thank you to everybody for listening, and until



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